What is claim d is:

1. A driving circuit for improving starting of a hybrid induction motor having a main coil forming a main magnetic field and a auxiliary-coil connected in parallel to the main coil and forming a rotating magnetic field corresponding to a magnetic field generated by the main coil comprising:

a capacitor (Cr) for operation electrically connected between the main coil and the auxiliary-coil; and

a starting and current cutting-off means electrically connected with the capacitor (Cr) for operation, applying a high starting current to a motor in starting and cutting off the starting current when the motor is operated at a synchronous speed after the starting.

2. The driving circuit of claim 1, wherein the starting and current cutting-off means comprises:

a capacitor for starting connected in parallel to the capacitor for operation, and applying a high starting current to a motor in starting; and

a switch connected in series to the capacitor for starting, turned on in starting and turned off in normal operation.

3. The driving circuit of claim 2, wherein the switch is a resistance device and is a PTC thermistor (Positive Temperature Coefficient Thermistor) resistance of which sharply increases to restrain a flow of currents when power is applied thereto.

4. The driving circuit of claim 3, wherein the capacitor (Cr) for

operation is connected in series to ends of the main coil and the auxiliary-coil, and the capacitor (Cs) for starting and the PTC thermistor which are connected in series to each other are connected in parallel to the capacitor (Cr) for operation.

5. The driving circuit of claim 1, wherein the main coil is divided into first and second main coils, a high starting current is applied to a motor through the starting and current cutting-off means in starting, and a low operation current is applied to a motor in normal operation.

6. The driving circuit of claim 5, wherein the starting and current cutting-off means comprises:

a PTC thermistor connected between a connection point of the first and second main coils and power; and

an NTC thermistor (Negative Temperature coefficient Thermistor) connected in series to the first and second main coils.

7. The driving circuit of claim 6, wherein the PTC thermistor is turned on in starting and turned off in normal operation, and the NTC thermistor is turned off in starting and turned on in normal operation.

8. A driving circuit for improving starting of a hybrid induction motor having a cup-shaped rotating magnet rotor rotating at a synchronous speed and an induction rotor inside the magnet rotor, and composed of a main coil and a auxiliary-coil comprising:

a capacitor (Cr) for operation applying a low operation current to a motor

in normal operation;

a capacitor (Cs) for starting connected in parallel to the capacitor for operation, and applying a high starting current to the motor in starting of the motor; and

a PTC thermistor connected in series to the capacitor for starting, turned on in starting of the motor, and turned off in normal operation.

9. A driving circuit for improving starting of a hybrid induction motor having a cup-shaped rotating magnet rotor rotating at a synchronous speed and an induction rotor inside the magnet rotor, and composed of a main coil and a auxiliary-coil comprising:

a PTC thermistor dividing the main coil into first and second main coils, connected between a connection point of the first and second main coils and power, turned on in starting of a motor, and turned off in normal operation; and

an NTC thermistor connected in series to the first and second main coils, turned off in starting of a motor, and turned on in normal operation.

10. A method for improving starting of a hybrid induction motor having a main coil forming a main magnetic field and a auxiliary-coil connected in parallel to the main coil and forming a rotating magnetic field corresponding to a magnetic field generated by the main coil the steps of:

when single-phase commercial power is applied thereto, turning on a PTC thermistor and simultaneously applying a high starting current to a motor through a capacitor (Cs) for starting;

when a rotating magnetic field is generated through the capacitor (Cs) for

starting, starting a magnet rotor, and rotating a cage rotor after the magnet rotor rotates at a synchronous speed; and

after a predetermined time elapses, turning off the PTC thermistor, applying a low operation current to a motor through a capacitor (Cr) for operation, and driving an induction motor.

11. The method of claim 10, the capacitor for starting is connected in parallel to the capacitor for operation and applies a high starting current to a motor in starting.

12. The method of claim 10, wherein the PTC thermistor is a resistance device that is connected in series to the capacitor for starting, is turned on in starting, and is turned off in normal operation, resistance of which sharply increases to restrain a flow of currents when power is applied thereto.

13. The method of claim 10, wherein the capacitor (Cr) for operation is connected in series to ends of the main coil and the auxiliary-coil, and the capacitor (Cs) for starting and the PTC thermistor which are connected in series to each other are connected in parallel to the capacitor (Cr) for operation.

14. A method for improving starting of a hybrid induction motor having a main coil forming a main magnetic field and a auxiliary-coil connected in parallel to the main coil and forming a rotating magnetic field corresponding to a magnetic field generated by the main coil comprising the steps of:

when single-phase commercial power is applied thereto, turning on a PTC

thermistor (Positive Temperature Coefficient Thermistor) having a low resistance value and turning off an NTC thermistor having a high resistance value to apply a high starting current to a motor;

starting a magnet rotor by generating a rotating magnet rotor through a capacitor (Cr) for operation, and rotating a cage rotor after the magnet rotor rotates at a synchronous speed; and

after a predetermined time elapses, turning off the PTC thermistor and turning on the NTC thermistor (Negative Temperature Coefficient Thermistor) to apply a low operation current to the motor, and operating an induction rotor.

15. The method of claim 14, wherein by forming a tap in the main coil, the main coil is divided into a first main coil and a second main coil.

16. The method of claim 15, wherein the PTC thermistor (Positive Temperature Coefficient Thermistor) is connected between a connection point of the first and second main coils and power, is turned on in starting, and is turned off in normal operation.

17. The method of claim 15, wherein the NTC thermistor (Negative Temperature Coefficient Thermistor) is connected in series to the first and second main coils, is turned off in starting, and is turned on in normal operation.